

# 2011-04-27 Wednesday Morning Notes

Wednesday, April 27, 2011  
8:34 AM

## Stacking and Transfers

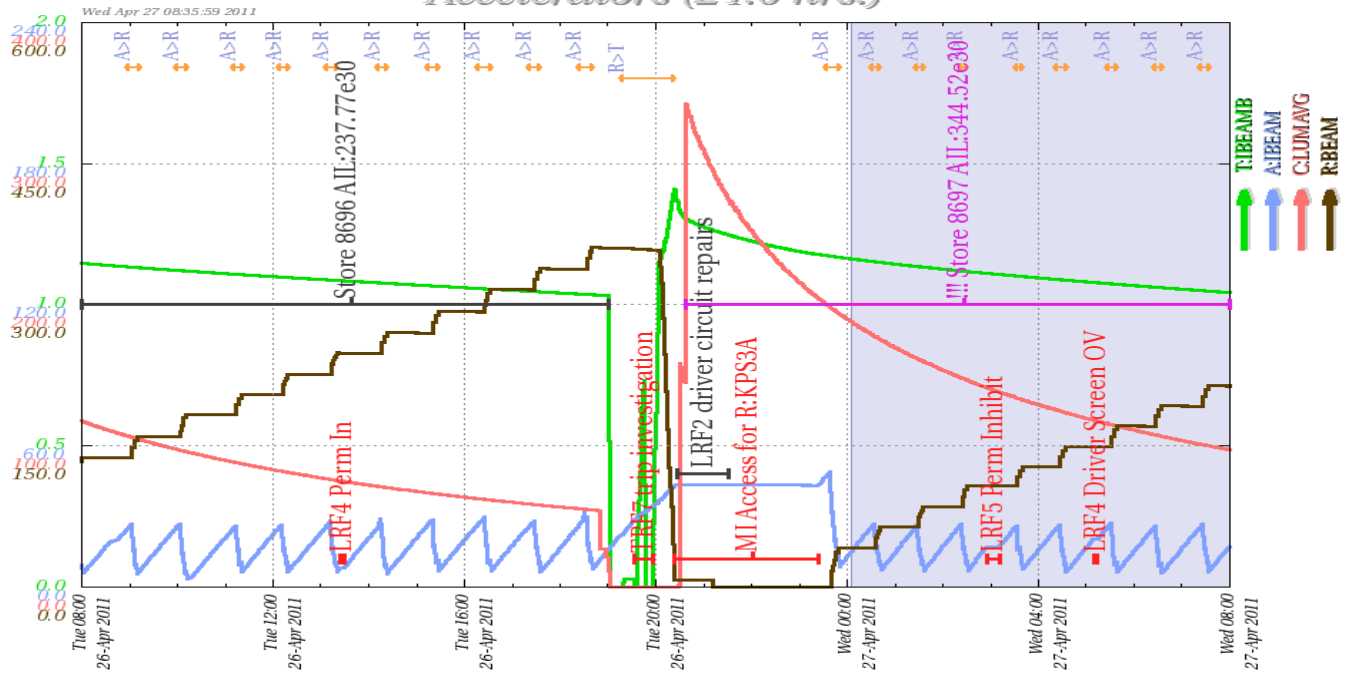
- Stacked 24.9mA/hr with a production of 20.0 pbars/Mp and 8.18 Tp on target
- Unstacked 493E10 in 61 transfers over 20 sets with an overall efficiency of 96.2%.
  - Remove transfer 24293 (4/27/11 23:39, 50mA) and we get 96.3%

## Numbers

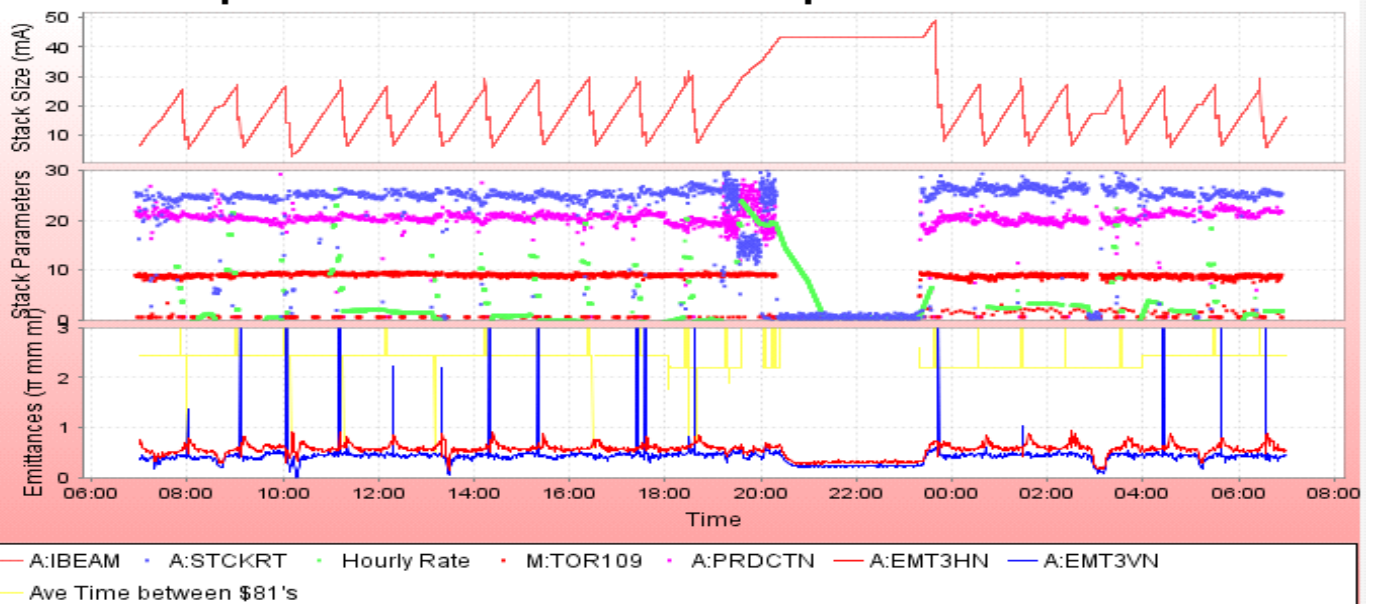
- Stacking
  - Pbars stacked: 474.55 E10
  - Time stacking: 20.98 Hr
  - Average stacking rate: 22.62 E10/Hr
- Uptime
  - Number of pulses while in stacking mode: 31257
  - Number of pulses with beam: 29858
  - Fraction of up pulses was: 95.52%
- The uptime's effect on the stacking numbers
  - Corrected time stacking: 20.04 Hr
  - Possible average stacking rate: 23.68 E10/Hr
  - Could have stacked: 496.78 E10/Hr
- Recycler Transfers
  - Pbars sent to the Recycler: 476.15 E10
  - Number of transfers : 59
  - Number of transfer sets: 20
  - Average Number of transfer per set: 2.95
  - Time taken to shoot including reverse proton tuneup: 00.21 Hr
  - Transfer efficiency: 95.72%
- Other Info
  - Average POT : 8.19 E12
  - Average production: 19.41 pbars/E6 protons

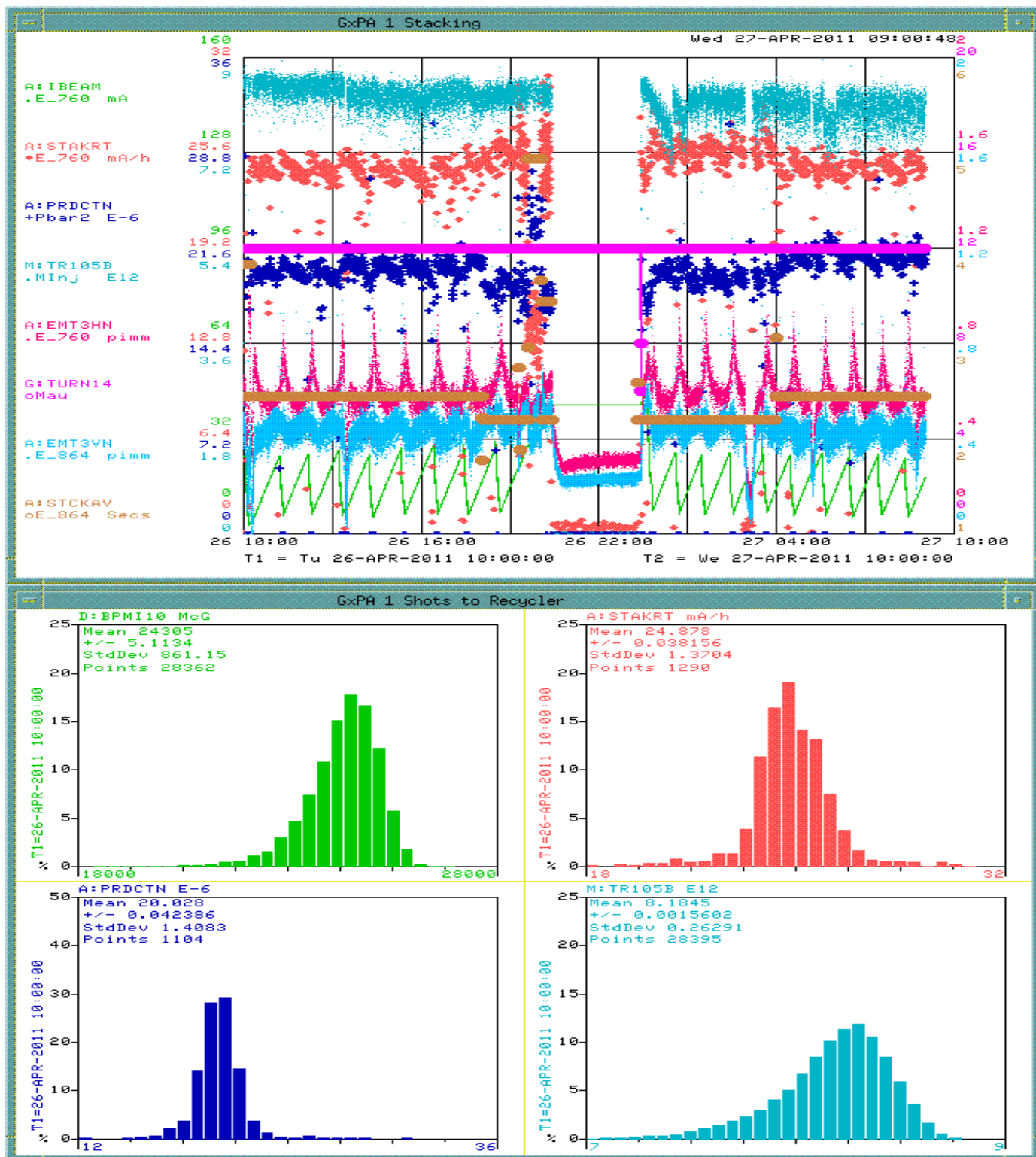
Plots

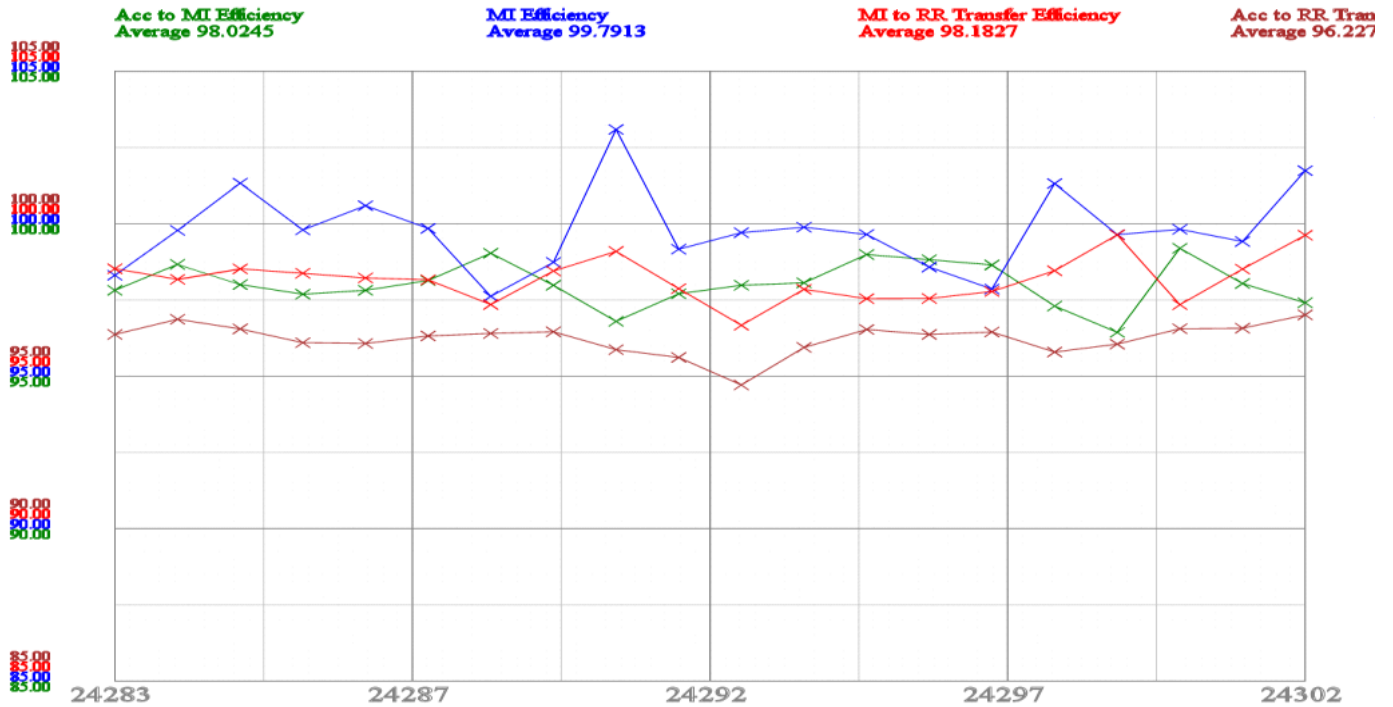
## Accelerators (24.0 hrs.)



## Tue Apr 26 07:00:00 CDT 2011 -- Wed Apr 27 07:00:00 CDT 2011







| Column 1<br>Number<br>_0_Pbar<br>Transfer<br>Shot # | Column 4 Number_3_Transfer Time | Column 21<br>Number<br>_20_A-I<br>BEAMB<br>sampled<br>on \$91<br>(A-BEA<br>M7), E10 | Column 22<br>Number<br>_21_A-I<br>BEAMB<br>sampled<br>on \$94<br>(A-BEA<br>M9), E10 | Unstacked<br>(mA) | Column 23<br>Number<br>_22_R-B<br>EAMS<br>(R-BEA<br>ME0[0])<br>pre sfer<br>E10 | Column 24<br>Number<br>_23_R-B<br>EAM<br>(R-BEA<br>ME0[1])<br>post sfer, E10 | Stashed | Acc to RR<br>Eff | Acc to MI<br>Eff | Acc to MI2 Eff | Acc to MI<br>* Acc to<br>MI2<br>Efficiency | Transfers | Sets | Column 5<br>Number<br>_4_Acc<br>Horizontal<br>Emittance | Column 6<br>Number<br>_5_Acc<br>Vertical<br>Emittance | Column 8<br>Number<br>_7_Acc<br>Longitudinal<br>Emittance |       |
|---|---------------------------------|---|---|-------------------|--|--|---------|------------------|------------------|----------------|--|-----------|------|---|---|---|-------|
|   | Totals =>                       |   |   | 493.70            |  |  | 474.74  | 96.16%           | 98.09%           | 97.87%         | 96.00%                                     | 61        | 20   | 5.7778  | 4.1316  | 1.9622  |       |
|   | Daily Average =>                |   |   | 493.70            |  |  | 474.74  |                  |                  |                |  | 61        | 20   |   |   |   |       |
| 24302   | Wednesday, April 27, 2011       | 8:20  | 25.70   | 6.07              | 22.17  | 213.52   | 234.67  | 21.49            | 96.91%           | 97.83%         | 98.88%                                     | 96.73%    | 3    | 1   | 5.991   | 4.07  | 1.982 |
| 24301   | Wednesday, April 27, 2011       | 7:26  | 27.10   | 6.59              | 23.02  | 192.19   | 214.12  | 22.21            | 96.49%           | 98.20%         | 97.38%                                     | 95.63%    | 3    | 1   | 5.691   | 4.158   | 1.967 |
| 24300   | Wednesday, April 27, 2011       | 6:27  | 26.21   | 5.83              | 22.86  | 170.92   | 192.75  | 22.09            | 96.65%           | 99.22%         | 98.71%                                     | 97.93%    | 3    | 1   | 6.005   | 3.965   | 1.932 |
| 24299   | Wednesday, April 27, 2011       | 5:31  | 27.41   | 6.35              | 23.60  | 148.97   | 171.36  | 22.66            | 96.03%           | 96.89%         | 96.41%                                     | 93.41%    | 3    | 1   | 5.706   | 4.063   | 1.938 |
| 24298   | Wednesday, April 27, 2011       | 4:27  | 26.69   | 6.25              | 22.99  | 127.50   | 149.37  | 22.09            | 96.09%           | 97.72%         | 99.17%                                     | 96.91%    | 3    | 1   | 5.791   | 4.251   | 1.969 |
| 24297   | Wednesday, April 27, 2011       | 3:33  | 26.29   | 7.34              | 21.62  | 107.14   | 127.79  | 20.86            | 96.51%           | 98.43%         | 96.83%                                     | 95.30%    | 3    | 1   | 5.985   | 4.408   | 2.024 |
| 24296   | Wednesday, April 27, 2011       | 2:24  | 27.31   | 6.78              | 23.11  | 85.49  | 107.50  | 22.24            | 96.21%           | 98.36%         | 97.40%                                     | 95.80%    | 3    | 1   | 5.943   | 4.311   | 1.995 |
| 24295   | Wednesday, April 27, 2011       | 1:28  | 26.89   | 6.65              | 22.78  | 63.88  | 85.72   | 21.99            | 96.51%           | 98.52%         | 98.45%                                     | 96.99%    | 3    | 1   | 5.955   | 4.341   | 2.002 |
| 24294   | Wednesday, April 27, 2011       | 0:35  | 27.59   | 6.84              | 23.34  | 41.85  | 64.08   | 22.37            | 95.82%           | 98.35%         | 98.03%                                     | 96.41%    | 3    | 1   | 5.864   | 4.421   | 1.969 |
| 24293   | Tuesday, April 26, 2011         | 23:39   | 49.48   | 8.23              | 44.93  | 0.33   | 42.09   | 42.43            | 94.43%           | 97.72%         | 97.26%                                     | 95.05%    | 4    | 1   | 6.139   | 4.509   | 1.945 |
| 24292   | Tuesday, April 26, 2011         | 18:33   | 30.30   | 7.40              | 25.47  | 337.35   | 361.27  | 24.42            | 95.88%           | 97.88%         | 97.23%                                     | 95.17%    | 3    | 1   | 6.044   | 4.441   | 1.965 |
| 24291   | Tuesday, April 26, 2011         | 17:28   | 28.46   | 6.60              | 24.43  | 315.90   | 338.87  | 23.43            | 95.93%           | 97.33%         | 99.62%                                     | 96.96%    | 3    | 1   | 5.73  | 4.122   | 1.963 |
| 24290   | Tuesday, April 26, 2011         | 16:25   | 30.03   | 6.62              | 25.86  | 292.48   | 317.07  | 24.97            | 96.59%           | 98.24%         | 97.35%                                     | 95.64%    | 3    | 1   | 5.738   | 4.165   | 1.949 |
| 24289   | Tuesday, April 26, 2011         | 15:20   | 29.02   | 6.87              | 24.66  | 269.97   | 293.38  | 23.77            | 96.39%           | 99.15%         | 97.55%                                     | 96.72%    | 3    | 1   | 5.763   | 4.07  | 1.945 |
| 24288   | Tuesday, April 26, 2011         | 14:15   | 27.10   | 5.91              | 23.58  | 248.26   | 270.69  | 22.74            | 96.43%           | 98.42%         | 98.07%                                     | 96.51%    | 3    | 1   | 5.7   | 3.819   | 1.942 |
| 24287   | Tuesday, April 26, 2011         | 13:12   | 28.34   | 6.33              | 24.56  | 225.67   | 248.98  | 23.62            | 96.19%           | 97.71%         | 98.26%                                     | 96.00%    | 3    | 1   | 5.679   | 3.965   | 1.961 |
| 24286   | Tuesday, April 26, 2011         | 12:11   | 27.08   | 6.48              | 23.16  | 204.24   | 226.27  | 22.30            | 96.28%           | 97.70%         | 97.09%                                     | 94.86%    | 3    | 1   | 5.778   | 4.32  | 1.98  |
| 24285   | Tuesday, April 26, 2011         | 11:13   | 26.45   | 6.36              | 22.61  | 183.20   | 204.76  | 21.82            | 96.51%           | 98.06%         | 99.22%                                     | 97.30%    | 3    | 1   | 5.741   | 4.176   | 1.977 |
| 24284   | Tuesday, April 26, 2011         | 10:04   | 27.10   | 3.18              | 25.19  | 159.60   | 183.71  | 24.34            | 96.64%           | 98.56%         | 98.46%                                     | 97.05%    | 3    | 1   | 4.501   | 3.078   | 1.913 |
| 24283   | Tuesday, April 26, 2011         | 9:02  | 27.14   | 5.88              | 23.77  | 137.29   | 159.94  | 22.90            | 96.33%           | 97.90%         | 96.67%                                     | 94.64%    | 3    | 1   | 5.812   | 3.979   | 1.926 |